



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Date: November 28, 2005
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TO: Standing Committee on City Services and Budgets
FROM: General Manager of Engineering Services
SUBJECT: Annual Review of Water Rates for 2006 under the Water Works By-law

RECOMMENDATION

- A. *THAT Council approve an increase of 7.5%, as detailed in this report and as set out in Appendix A, to the following fees under the Water Works By-law:*
- *Flat fees for single dwelling units (increase from \$306 to \$329) (Schedule B),*
 - *Other flat water service charges for single family dwelling unit with suite and each strata title duplex (Schedule "B"),*
 - *Charges for metered water service (Schedule "D"), and*
 - *Charges for temporary water service during construction (Schedule "F")*
- B. *THAT Council approve an increase of 5%, as detailed in this report and as set out in Appendix A, to the following fees for services under the Water Works By-law:*
- *Flat rate water connection fees and removal fees (Schedule "A"),*
 - *Service pipe removal fees (Schedule "A.1"),*
 - *Flat service charges for unmetered fire service pipes (Schedule "C"),*
 - *Meter service charges (Schedule "E"), and*
 - *Flat rate fees for installation of water meters (Schedule "G")*

- C. *THAT the Director of Legal Services be instructed to bring forward for enactment amendments to the Water Works By-law, substantially as set out in Appendix A, to give effect to recommendations A, B, and C of this report.*

GENERAL MANAGER'S COMMENTS

The General Manager of Engineering Services RECOMMENDS approval of A through C.

COUNCIL POLICY

Water rates for both metered and non-metered customers are specified in the Schedules of Rates and Charges included in the Water Works By-law. These schedules are updated annually by Council.

PURPOSE

The purpose of this report is to recommend increases in water charges for 2006.

BACKGROUND

The waterworks distribution system of the City of Vancouver operates as a Utility. Utility operating costs and debt charges are combined with the cost of water purchased from the Greater Vancouver Water District (GVWD) supply system and are recovered through charges to system users.

The Utility uses a Water Rate Stabilization Reserve to balance revenues and expenditures each year. The cost of purchasing water from the GVWD had annual increases of 13.5% and 12% in 2004 and 2005 respectively and will increase by an additional 64% by 2009. This level of increase is a result of the capital costs of regional water quality initiatives primarily the new Seymour-Capilano Filtration Project. In anticipation of significant increases in these costs, Council adopted a strategy of using the Water Rate Stabilization Reserve to provide funding to "smooth" significant year-over-year increases in water rates.

DISCUSSION

1. 2005 Waterworks Operating Budget

The waterworks budget is dominated by debt charges and water purchase costs which account for 87% of total expenditures. The remainder of the expenditure budget is comprised of administrative operation and maintenance of the City's water system.

Table 1 summarizes the 2005 Water Works Operating Budget and the projected year-end results.

Table 1
2005 Water Budget and 2005 Projected Results

| | 2005 Budget | 2005 Year-end Projection | Inc/(Dec) |
|----------------------------|---------------------|--------------------------------|------------------|
| <u>Expenditures</u> | | | |
| Debt Charges | \$24,449,500 | \$24,449,500 | \$0 |
| Water Purchases (GVWD) | 32,532,400 | 32,089,900 | 442,500 |
| Water Rates Billing | 608,400 | 608,400 | 0 |
| Operating and Maintenance | 7,464,900 | 7,189,900 | 275,000 |
| Total Expenditures | \$65,055,200 | \$64,337,700 | \$717,500 |
| <u>Revenues</u> | | | |
| Flat Rate Revenues | \$26,118,000 | \$26,128,500 | \$10,500 |
| Meter Service Charges | 2,274,100 | 2,400,000 | 125,900 |
| Metered Rate Revenues | 36,293,000 | 37,324,700 | 1,031,700 |
| Other Revenues | 1,200 | 1,200 | 0 |
| | 64,686,300 | 65,854,400 | 1,168,000 |
| Transfer from/(to) Reserve | 368,900 | (1,516,700) | (1,885,500) |
| Total Revenues | \$65,055,200 | \$64,337,700 | \$717,500 |

It is anticipated that 2005 financial actual results will show a positive variance of approximately \$1.88 million. Water purchase costs are expected to be lower than originally budgeted by approximately \$442,000 as a result of lower than anticipated consumption. Revenues have been over by approximately \$1.17 million, primarily attributed to higher metered revenues due to higher than expected water usage in the metered accounts. In addition, Operating and Maintenance accounts will likely be under expended by approximately \$275,000 as a result of better system performance than anticipated when the budget was prepared. Staff expect that a surplus of approximately \$1.52 million will be transferred to the Water Rates Stabilization Reserve at year-end. This compares to the original budgeted transfer of \$368,900 from the Reserve that was required to balance the 2005 budget.

2. 2006 Waterworks Operating Budget

Table 2 summarizes the anticipated operating expenditures for the Water Utility for 2006. The table includes estimates of City operating and debt costs as well as the costs of purchasing water from the Greater Vancouver Water District. Also included are adjustments to the budget based on the revenue and expenditure variances indicated above.

The GVWD has approved an increase in water costs of 16.2% for 2006. With the implementation of the water quality initiatives at the District, it is anticipated that water

costs will increase a further 41% by 2009 from the 2006 level, making this cost the most significant driver in the Water Utility during the period.

Table 2
2005 and 2006 Water Budget

| | 2005 Budget | 2006 Proposed Budget | Inc/(Dec) | % |
|----------------------------|---------------------|----------------------------|--------------------|-------|
| <u>Expenditures</u> | | | | |
| Debt Charges | \$24,449,500 | \$26,017,100 | \$1,567,600 | 6.4% |
| Water Purchases (GVWD) | 32,532,400 | 37,608,600 | 5,076,200 | 15.6% |
| Water Rates Billing | 608,400 | 619,200 | 10,800 | 1.8% |
| Operating and Maintenance | 7,464,900 | 7,716,700 | 251,800 | 3.4% |
| Total Expenditures | <u>\$65,055,200</u> | <u>\$71,961,600</u> | <u>\$6,906,400</u> | 10.6% |
| <u>Revenues</u> | | | | |
| Flat Rate Revenues | \$26,118,000 | \$28,081,100 | \$1,963,100 | 7.5% |
| Meter Service Charges | 2,274,100 | 2,410,600 | 136,500 | 6.0% |
| Metered Rate Revenues | 36,293,000 | 39,023,500 | 2,730,500 | 7.5% |
| Other Revenues | 1,200 | 1,200 | 0 | - |
| | 64,686,300 | 69,516,400 | 4,830,100 | 7.5% |
| Transfer from/(to) Reserve | 368,900 | 2,445,200 | 2,076,300 | |
| Total Revenues | <u>\$65,055,200</u> | <u>\$71,961,600</u> | <u>\$6,906,400</u> | 10.6% |

City operating costs are anticipated to increase by 3.3% from the 2005 budget level as a result of inflationary increases and other adjustments in maintenance budgets. Adjustments in maintenance budgets are attributed to an increase in funding of \$110,600 to cover the expansion of the Proactive Leak Detection work program from partial year to a full year program and to fund \$20,000 for the purchase of some equipment and software relate to field crew communications and management. In addition, the proposed 2005 budget includes a 6.4% increase in debt charges related to the waterworks capital program. The increase in debt charges is due to principal and interest payments arising from the 2005 debenture issue.

Despite these increases, utilizing the Water Rates Stabilization Reserve will allow the Water Utility to hold its water rate increase to 7.5% in 2006. This increase will bring the flat water fee for residential properties to \$329, up from \$306 in 2005. Rates for metered service will also increase by approximately 7.5% over the 2005 levels.

The proposed fees are included in Appendix A, attached.

3. Water Rates Stabilization Reserve

The Water Utility uses the Water Rates Stabilization Reserve as a "shock absorber" to moderate significant year-over-year increases in water rates. This strategy has been particularly effective in keeping a moderate 6.5% increase in City's water rates in the last two years while the cost of water purchased from the region had seen an increase of 12% and 13.5% in 2004 and 2005 respectively.

On the assumption of a 7.5% rate increase in 2006, Table 3 projects water rate increases from 2007 through 2010. By using the Water Rates Stabilization Reserve, it is anticipated that increases to users during this period can be held in the 7% range annually for the next three years despite an anticipated increase in the cost of water purchased from the region of 24% in 2007.

Table 3
Forecast of Water Rate Stabilization Reserve

| | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|----------|----------|----------|----------|----------|
| Projected GVWD Water Rate (\$ per cubic meter) | \$.2908 | \$.3617 | \$.3805 | \$.4091 | \$.4215 |
| % Increase | 16.2% | 24.4% | 5.2% | 7.5% | 3.0% |
| Anticipated Change in City Water Rate | 7.5% | 7.0% | 7.0% | 7.0% | 5.0% |
| Water Rate Stabilization Reserve | | | | | |
| Reserve Balance Beg. of Year (\$ millions) | \$18.55 | \$16.10 | \$11.23 | \$9.31 | \$6.61 |
| Operating Surplus / (Deficit) (\$ millions) | (2.45) | (5.53) | (3.29) | (5.01) | 0.09 |
| Reserve Balance End of Year (\$ millions) | \$16.10 | \$10.57 | \$7.28 | \$2.27 | \$2.36 |

Success in achieving the anticipated result indicated above will depend on the region completing its capital program and translating those costs to water rates as anticipated.

4. Connection Fees and Other Water Fees and Charges

In addition to consumption based charges, the Water Works By-law includes fees and charges for a variety of services provided by the City, including service connection fees, unmetered fire service fees and meter installation and service charges. These are provided through a cost recovery program and the applicable fees are detailed in Schedules A, A.1, C, E, and G of the by-law. It is recommended that these fees be increased by 5% to accommodate inflationary increases in wages, construction materials and equipment rental costs.

No changes are recommended to fees in Schedules H and I.

The proposed fees are included in Appendix 1, attached.

CONCLUSION

Rates for water consumption and services are adjusted annually to offset cost increases in the water utility, including operating and debt charge costs and the costs of purchasing water from the GVWD. Based on a review of the waterworks costs for 2006, it is recommended that water consumption based fees be increased by approximately 7.5% and service and connection fees be increased by 5%, as described in this report.

* * * * *

Water Works By-Law No. 4848
Schedules of Rates and Charges for 2006
(with comparable rates for 2005)

| Recommended Fee Adjustments | | |
|------------------------------------|-------|--|
| Water rate increase | 7.50% | Applicable to Sch B, D & F Schedule A |
| Connection Fee Increase | 5.00% | |
| Service Fee Increase | 5.00% | Applicable to Sch A.1, C, E & G Schedule A: all other fees |
| Other Fees | 0.00% | |

| Schedule A | Flat Rate Connection Fees | |
|-------------------|----------------------------------|--|
|-------------------|----------------------------------|--|

| <u>Service Pipe Size</u> | <u>Present</u> | <u>Proposed Fee</u> |
|---|----------------|---------------------|
| <u>Single-Family & Two-Family Dwellings</u> | | |
| 20 mm (3/4") | \$2,578 | \$2,707 |
| 25 mm (1") | \$2,682 | \$2,816 |
| 40 mm (1 1/2") | \$3,092 | \$3,247 |
| 50 mm (2") | \$3,092 | \$3,247 |
| <u>Other Connections</u> | | |
| 20 mm (3/4") | \$5,157 | \$5,415 |
| 25 mm (1") | \$5,367 | \$5,635 |
| 40 mm (1 1/2") | \$6,193 | \$6,503 |
| 50 mm (2") | \$6,193 | \$6,503 |
| 100 mm (4") | \$8,953 | \$9,401 |
| 150 mm (6") | \$11,073 | \$11,627 |
| 200 mm (8") | \$12,092 | \$12,697 |
| 300 mm (12") | \$17,018 | \$17,869 |

| Schedule A.1 | Removal Fees | |
|---------------------|---------------------|--|
|---------------------|---------------------|--|

| | | |
|-------------------------------------|---------|---------|
| 20mm (3/4") to 50mm (2") inclusive | \$649 | \$681 |
| 100mm (4") to 300mm (12") inclusive | \$1,944 | \$2,041 |

| Schedule B | Annual Flat Rate Service Charges for Residential Properties | |
|-------------------|--|--|
|-------------------|--|--|

| | <u>Present</u> | <u>Proposed</u> |
|------------------------------|----------------|-----------------|
| Single dwelling unit | \$306 | \$329 |
| Single-Family with suite | \$414 | \$446 |
| For each strata title duplex | \$207 | \$223 |

| Schedule C | Annual Flat Service Charges for Unmetered Fire Service Pipes | |
|------------|--|--|
|------------|--|--|

| Pipe Size | Present | Proposed |
|-----------------------|---------|----------|
| 50 mm (2") or smaller | \$142 | \$149 |
| 75 mm (3") | \$213 | \$224 |
| 100 mm (4") | \$294 | \$309 |
| 150 mm (6") | \$340 | \$357 |
| 200 mm (8") | \$398 | \$418 |
| 250 mm (10") | \$423 | \$444 |
| 300 mm (12") | \$453 | \$476 |

| Schedule D | Charges for Metered Water Service | |
|------------|-----------------------------------|--|
|------------|-----------------------------------|--|

| | | Present | Proposed |
|--------------------|---------------------|-----------------------------------|----------|
| | | Rate per Unit (2,831.6 liters) | |
| Two Monthly Period | Four Monthly Period | | |
| Per unit | Per unit | \$1.479 | \$1.590 |

A minimum charge of 8 units per month will be charged should lower or no consumption be recorded in any billing period

| Schedule E | Meter Service Charges | |
|------------|-----------------------|--|
|------------|-----------------------|--|

The following schedule shows the meter charge based on the size and type of meter, payable on each service, in addition to water consumption charges.

| Per Two Monthly Period | Present | Proposed |
|---|---------|----------|
| <u>Services with Standard Type Meters</u> | | |
| 17 mm (1/2") and 20 mm (3/4") | \$22 | \$23 |
| 25 mm (1") | \$24 | \$25 |
| 40 mm (1 1/2") | \$28 | \$29 |
| 50 mm (2") | \$35 | \$37 |
| 75 mm (3") | \$71 | \$75 |
| 100 mm (4") | \$87 | \$91 |
| 150 mm (6") | \$112 | \$118 |
| 200 mm (8") | \$174 | \$183 |
| 250 mm (10") | \$214 | \$225 |
| 300 mm (12") | \$256 | \$269 |
| <u>Services with Low Head Loss Meters / Detector Check Valves</u> | | |
| 100 mm (4") | \$101 | \$106 |
| 150 mm (6") | \$147 | \$154 |
| 200 mm (8") | \$197 | \$207 |
| 250 mm (10") | \$245 | \$257 |
| 300 mm (12") | \$293 | \$308 |

| Per Four Monthly Period | Present | Proposed |
|---|---------|----------|
| <u>Services with Standard Type Meters</u> | | |
| 17 mm (1/2") and 20 mm (3/4") | \$28 | \$29 |
| 25 mm (1") | \$32 | \$34 |
| 40 mm (1 1/2") | \$43 | \$45 |
| 50 mm (2") | \$57 | \$60 |

| | |
|-------------------|--|
| Schedule F | Charges for Temporary Water Service During Construction |
|-------------------|--|

| Building Size in Square Meters of Gross Floor Area | Present | Proposed |
|--|--|----------|
| | Rate in Dollars of Gross Floor Area per Building | |
| Up to and including 500 sq.m | \$135 | \$145 |
| Over 500 but not exceeding 2,000 | \$265 | \$285 |
| Over 2,000 but not exceeding 9,000 | \$398 | \$428 |
| Over 9,000 but not exceeding 24,000 | \$669 | \$719 |
| Over 24,000 but not exceeding 45,000 | \$1,001 | \$1,076 |
| Over 45,000 | \$1,328 | \$1,428 |

| | |
|-------------------|--|
| Schedule G | Fees for Installation of Water Meters |
|-------------------|--|

| Size of Standard Meter | Meter on City Property | Present | Proposed Fee |
|------------------------|------------------------|----------|--------------|
| 20 mm (3/4") | | \$2,107 | \$2,212 |
| 25 mm (1") | | \$2,168 | \$2,276 |
| 40 mm (1 1/2") | | \$2,240 | \$2,352 |
| 50 mm (2") | | \$2,240 | \$2,352 |
| 75 mm (3") | | \$7,980 | \$8,379 |
| 100 mm (4") | | \$7,980 | \$8,379 |
| 150 mm (6") | | \$27,542 | \$28,919 |
| 200 mm (8") | | \$27,542 | \$28,919 |
| 250 mm (10") | | \$33,041 | \$34,693 |
| 300 mm (12") | | \$33,041 | \$34,693 |

| Size of Standard Meter | Meter on Private Property | Present | Proposed Fee |
|------------------------|---------------------------|---------|--------------|
| 20 mm (3/4") | | \$266 | \$279 |
| 25 mm (1") | | \$282 | \$296 |
| 40 mm (1 1/2") | | \$282 | \$296 |
| 50 mm (2") | | \$400 | \$420 |
| 75 mm (3") | | \$618 | \$649 |
| 100 mm (4") | | \$618 | \$649 |
| 150 mm (6") | | \$691 | \$726 |
| 200 mm (8") | | \$800 | \$840 |
| 250 mm (10") | | \$1,041 | \$1,093 |
| 300 mm (12") | | \$1,041 | \$1,093 |

| Schedule H | Miscellaneous Fees for Water Users |
|------------|------------------------------------|
|------------|------------------------------------|

| | Present | Proposed |
|---|---------|----------|
| Cross Connection Control Administration Fees | | |
| First Assembly | \$20 | \$20 |
| Additional Assembly | \$10 | \$10 |
| Charges when service pipes are shut off for more than ninety days (per month) | | |
| 15mm, 20mm or equivalent unmetered services | \$2 | \$2 |

| Schedule I | Miscellaneous Charges |
|------------|-----------------------|
|------------|-----------------------|

| | Present | Proposed |
|---|---------|----------|
| Charges for Returned Cheques | \$35 | \$35 |
| Residual Water Pressure Estimate Fees | | |
| Original calculation | \$35 | \$35 |
| Additional copies for same location | \$10 | \$10 |
| Miscellaneous water information requests (per hour) | \$40 | \$40 |